

### ABSTRACT OF THE DISCLOSURE

A method for creating a lateral overflow drain, anti-blooming structure in a charge-coupled device, the method includes the steps of providing a substrate of a first conductivity type; providing a layer of silicon dioxide on the substrate; providing a layer of silicon nitride on the silicon dioxide layer;  
5 providing a first masking layer on the silicon nitride layer and having an opening in the first masking layer of a dimension which substantially equals a dimension of a subsequently implanted channel stop of the first conductivity type; etching away the exposed silicon nitride within the opening in the first masking layer;  
10 implanting ions of the first conductivity type through the first masking layer and into the substrate for creating the channel stop and removing the first masking layer; growing the silicon dioxide layer so that the channel stop is spanned by a thickest field silicon dioxide layer in the etched away portion; patterning a second masking layer having an opening adjacent the channel stop with a dimension  
15 substantially equal to a dimension of a subsequently implanted lateral overflow drain of a second conductivity type; etching away the exposed silicon nitride within the opening in the second masking layer; implanting the second conductivity type for forming the lateral overflow drain and removing any remaining masking layer; and growing the silicon dioxide layer so that a thicker  
20 silicon dioxide forms spanning the lateral overflow drain and the thickest silicon dioxide layer forms spanning the channel stop.